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09/740,212	12/15/2000	William J. Young	P4803	4343

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EXAMINER
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MAHMOUDI, HASSAN

ART UNIT	PAPER NUMBER
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2175

DATE MAILED: 06/17/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/740,212

Applicant(s)

YOUNG ET AL.

Examiner

Tony Mahmoudi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and 122.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Remarks*

1. In response to communications filed on 01-April-2003, claims 8, 15-18, 20-21, and 25-26 are amended per applicant's request. Claims 1-26 are pending in the application.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jammes et al (U.S. Patent No. 6,484,149) in view of Memmott et al (U.S. patent No. 6,560,591.)

As to claim 1, Jammes et al teaches a system (see Abstract) for querying a database in response to data access requests issued by an application program (see column 7, lines 48-50), the system comprising:

a text file containing queries corresponding to the data access requests (see column 1, lines 50-55, and see column 45, lines 27-35);

a database interface function (see column 7, lines 40-44);

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the queries, generated by operation of the database interface function on the text file (see column 7, lines 40-44, where “queries” is read on “requests from clients”, and see column 18, lines 48-60);

wherein, in response to one of the data access requests (see Abstract, and see column 50, lines 54-65), the database interface function submits, to the database, a query corresponding to the one of the data access requests (see column 16, lines 42-45), and retrieves the results of the query (see column 16, lines 45-49.)

Jammes et al does not teach: wherein the queries are formatted in accordance with the syntax required by the database; and a query lookup table, containing the queries.

Memcott et al teaches system and method for managing multiple data providers (see Abstract), in which he teaches wherein the queries are formatted in accordance with the syntax required by the database (see column 3, lines 28-31, and see column 7, lines 16-20); and a query lookup table containing the queries (see column 5, lines 14-17.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Jammes et al to include wherein the queries are formatted in accordance with the syntax required by the database; and a query lookup table, containing the queries.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Jammes et al with the teachings of Memcott et al, because the queries formatted in accordance with the syntax required by the database, would enable the system to interact with different databases regardless of the required format by such databases, by formatting the queries into formats suitable for each database. For

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example, it may be necessary to include information in the response to establish a context for the data (e.g. information similar to the query characteristic), and/or it may be necessary to present portions of the data in a specified sequence within the response, as taught by Memmott et al, (column 7, lines 20-24); and because a query lookup table, containing the queries would increase the speed up viewing and selecting queries, resulting in a faster decision process, as taught by Memmott et al, column 5, line 16.)

As to claims 2, 9, and 14, Jammes et al as modified teaches wherein the database interface function also formats the results of the query (see Memmott et al, column 7, lines 16-20.)

As to claims 3, 10, and 15, Jammes et al as modified teaches wherein the database interface function also returns the results of the query after the results have been formatted (see Jammes et al, column 20, lines 56-60.)

As to claims 4, 11, and 16, Jammes et al as modified teaches wherein the queries in the query lookup table are located by name in response to one of the data access requests (see Memmoth et al, column 5, lines 11-17, where “name” is read on “characteristics”.)

As to claim 5, Jammes et al as modified teaches wherein the query name indicates a type of data requested (see Jammes et al, column 10, lines 10-22) and a type of operation to be performed on the database (see Jammes et al, column 18, lines 10-25.)

As to claims 6, 12, and 17, Jammes et al as modified teaches wherein each of the data access requests (see Jammes et al, Abstract, and see column 50, lines 54-65) provided by the application comprises a query name and an argument array (see Jammes et al, column 10, lines 10-22, and see column 18, lines 48-60.)

As to claims 7 and 18, Jammes et al as modified teaches wherein the queries in the text file are SQL strings (see Jammes et al, column 19, lines 9-19.)

As to claim 8, Jammes et al teaches a system for interfacing an application program (see Abstract, and see column 8, lines 53-59) with more than one type of database (see figure 1) in response to data access requests issued by an application program (see column 50, lines 54-65), the system comprising:

- a first text file containing queries corresponding to the data access requests (see column 1, lines 50-55, and see column 45, lines 27-35);

- a database interface function (see column 7, lines 40-44);

- the queries, generated by operation of the database interface function on the first text file (see column 7, lines 40-44, where “queries” is read on “requests from clients”, and see column 18, lines 48-60);

- a second database (see column 57, lines 5-14);

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a second text file containing queries (see column 1, lines 50-55, and see column 45, lines 27-35), formatted in accordance with the second database (see column 7, lines 40-47), corresponding to the data access requests (see column 16, lines 42-45); and

a second query generated by operation of the database interface function on the text file (see column 7, lines 40-44, where “queries” is read on “requests from clients”, and see column 18, lines 48-60);

wherein, in response to one of the data access requests (see Abstract, and see column 50, lines 54-65) issued to either database, the database interface function submits, to the appropriate database, a query corresponding to the one of the data access requests (see column 16, lines 42-45), and retrieves the results of the query (see column 16, lines 45-49.)

Jammes et al does not teach: wherein the queries are formatted in accordance with the first database; a first query lookup table; and a second query lookup table.

Memmott et al teaches system and method for managing multiple data providers (see Abstract), in which he teaches wherein the queries are formatted in accordance with the first database (see column 3, lines 28-31, and see column 7, lines 16-20); and a first query lookup table; and a second query lookup table (see column 5, lines 14-17.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Jammes et al to include wherein the queries are formatted in accordance with the first database; a first query lookup table; and a second query lookup table.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Jammes et al with the teachings of Memmott et al,

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because wherein the queries are formatted in accordance with the first database, would enable the system to interact with different databases regardless of the required format by such databases, by formatting the queries into formats suitable for each database. For example, it may be necessary to include information in the response to establish a context for the data (e.g. information similar to the query characteristic), and/or it may be necessary to present portions of the data in a specified sequence within the response, as taught by Memmott et al, (column 7, lines 20-24), and because a first query lookup table; and a second query lookup table would increase the speed up viewing and selecting queries, resulting in a faster decision process, as taught by Memmott et al, column 5, line 16.)

As to claim 13, Jammes et al teaches a method for querying a database in response to data access requests issued by an application program (see Abstract), the method comprising the steps of:

storing queries (see column 8, lines 53-59), corresponding to the data access requests, in a text file (see column 16, lines 42-45) wherein the queries are formatted in accordance with the syntax required by the database (see column 20, lines 32-44);

reading the text file (see column 46, lines 23-31);

submitting, to the database, in response to one of the data access requests, one of the queries corresponding to the one of the data access requests (see column 16, lines 42-45), and retrieving the results of the query (see column 16, lines 45-49.)

Jammes et al does not teach generating a query lookup table containing the queries.



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The applicant is directed to the comments and remarks made for this teaching, in claim 1 above.

4. Claims 19-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jammes et al (U.S. Patent No. 6,484,149) in view of Memmott et al (U.S. Patent No. 6,560,591), and further in view of Larson (U.S. patent No. 6,115,705.)

As to claim 19, Jammes et al teaches a method for querying a database in response to data access requests issued by an application program (see Abstract), the method comprising the steps of:

writing database queries to access the database (see column 9, lines 12-18);

storing the database queries in a text file (see column 8, lines 53-59, and see column 16, lines 42-45);

reading the queries in the text file (see column 46, lines 23-31);

receiving, from the application program, one of the data access requests (see column 8, lines 60-67) including at least one parameter associated therewith (see column 17, lines 30-43);

locating, a selected one of the queries corresponding to the one of the data access requests received from the application program (see column 46, lines 33-42);

substituting the at least one parameter into corresponding positions in the selected one of the queries (see column 47, lines 50-55);

submitting, to the database, in response to one of the data access requests, the selected one of the queries (see column 16, lines 42-45); and

retrieving the results of the query (see column 16, lines 45-49.)

Jammes et al does not teach a query lookup table.

The applicant is directed to comments and remarks made for this teaching in claim 1 above.

Jammes et al as modified, still does not teach hashing the queries to generate a query lookup table containing the queries in hashed form.

Larson teaches a system and method for query processing in databases (see Abstract), in which he teaches hashing the queries to generate a query lookup table containing the queries in hashed form (see Abstract, and see column 6, lines 12-42.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Jammes et al as modified to include hashing the queries to generate a query lookup table containing the queries in hashed form.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Jammes et al as modified, with the teaching of Larson, because hashing the queries to generate a query lookup table containing the queries in hashed form, would enable the system to perform storage and retrieval of queries in a lookup table more efficiently, by minimizing the number of I/O operations and reducing memory requirements for the query processes.

As to claims 20 and 25, Jammes et al as modified teaches wherein the queries in the query lookup table (see Memmott et al, column 5, lines 11-17) are located by name in response to one of the data access requests (see Jammes et al, column 46, lines 40-54.)

As to claims 21 and 26, Jammes et al as modified teaches wherein each of the data access requests (see Jammes et al, Abstract, and see column 50, lines 54-65) provided by the application comprises a query name and an argument string (see Jammes et al, column 10, lines 10-22, and see column 18, lines 48-60.)

As to claim 22, Jammes et al teaches a method for querying a database in response to data access requests issued by an application program (see Abstract), the method comprising the steps of:

- creating a database interface function (see column 7, lines 40-44) to handle the data access requests (see column 26, lines 15-23);

- writing database queries to access the database (see column 9, lines 12-18);

- executing the database interface function (see Abstract) to perform the steps of:

For the remaining steps of claim 22, the applicant is directed to remarks and discussions made in claim 19 above.

As to claim 23, Jammes et al as modified teaches the method performed in an object-oriented programming environment (see Jammes et al, column 2, line 61 through column 3, line 12, and see column 6, lines 59 through column 7, line 7) wherein the database interface function comprises:

- a parent class that handles application logic common to all queries (see Jammes et al, column 19, lines 55-59); and

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a child class that formats the results of the query (see Jammes et al, column 20, lines 17-31.)

As to claim 24, Jammes et al as modified teaches wherein static data in the query lookup table (see Memmott et al, column 5, lines 11-17) comprises a class attribute available to all subclasses of the parent class without requiring reloading of the query lookup for each of the data access requests (see Jammes et al, column 12, lines 11-22, where "class attribute" is read on "class ID".)

#### *Response to Arguments*

5. Applicant's arguments filed on 01-April-2003 with respect to the cited references have been fully considered but they are moot in view of the new grounds for rejection.

#### *Conclusion*

6. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (703) 305-4887. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (703) 305-3830.

tm

June 3, 2003

  
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